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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,783	06/26/2003	Nanayuki Takeuchi	X2007.0142/0US0	3472
32172	7590	10/20/2004	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP 1177 AVENUE OF THE AMERICAS (6TH AVENUE) 41 ST FL. NEW YORK, NY 10036-2714			DOAN, JENNIFER	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/603,783

Applicant(s)

TAKEUCHI ET AL.

Examiner

Jennifer Doan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-12 and 17 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 13-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0603</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 6/26/2003, have all been considered and made of record (note the attached copy of form PTO-1449).

Drawings

3. The drawings, filed on 6/26/2003, are accepted.

Specification

4. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Takimoto et al. (U.S. Patent 5,247,598).

With respect to claim 1, Takimoto et al. (1(a) and 1(c)) disclose an optical fiber coupler reinforcing member (10) for housing and protecting an optical fiber coupler main body (15) in a longitudinal groove (11) provided in the longitudinal direction of a shaft member (see figure 1(a)), the longitudinal groove (11) having an approximately U-shaped cross-section (see figure 1(c) and column 2, lines 65-68) and the shaft member having a flat surface (see figure 1(c)) along the longitudinal direction thereof.

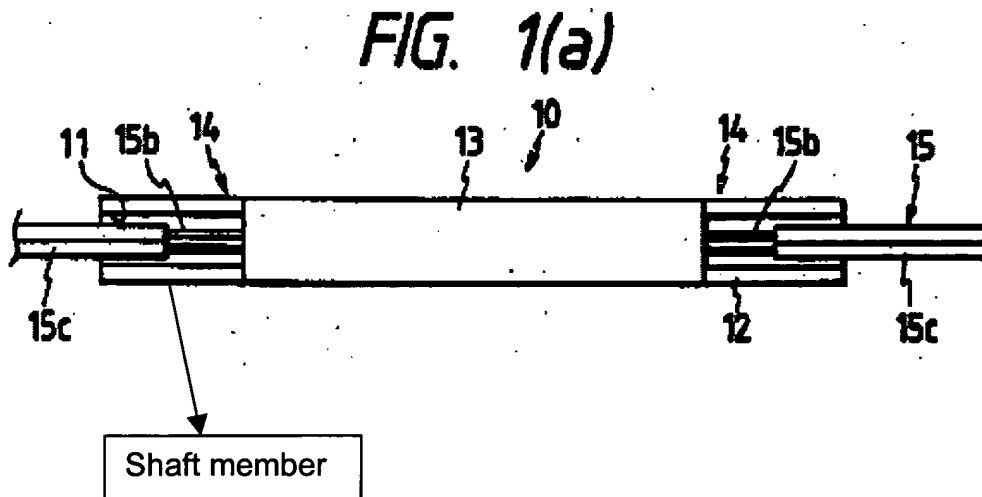
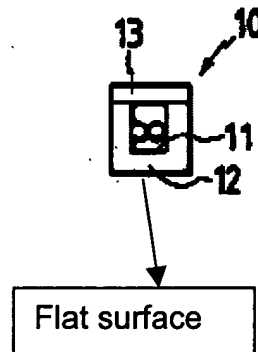


FIG. 1(c)



With respect to claim 17, Takimoto et al. (figure 10 and column 4, lines 47-49) disclose an optical fiber coupler comprising an optical fiber coupler reinforcing member.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

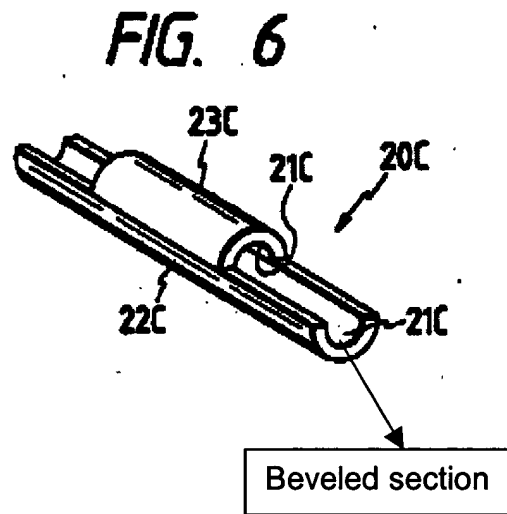
8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 3, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takimoto et al. (as cited above).

With respect to claim 3, as discussed above, Takimoto et al. (figures 1(a) and 1(c)) disclose the optical fiber coupler reinforcing member (10) having the longitudinal groove (11) with a U-shaped cross section, but figures 1(a) and 1(c) of Takimoto et al. do not disclose that corners of both ends of the longitudinal groove are beveled. However, another embodiment, such as figure 6, of Takimoto et al. shows the other shapes of the reinforcing member. Figure 6 of Takimoto et al. clearly shows the longitudinal groove (21C) having corners of both ends are beveled. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the U-shaped groove in figures 1(a) and 1(c) to have corners of both ends beveled (accordance with the teaching of another embodiment of Takimoto et al.), because, as taught by Takimoto et al., the changing in shape as disclosed in figure 1(c) or in figure 6 would produce no functional differences, they all give the same function of reinforcing casing (column 3, lines 50-56). Also see in re Woodruff, 919F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).



With respect to claims 9 and 11, Takimoto et al. (column 4, lines 32-41) disclose a material, such as plastics or ceramics, is preferably used to make an optical fiber coupler reinforcing member.

Takimoto et al. do not disclose an optical fiber coupler reinforcing member having a surface roughness of the shaft member is 1 to 100 μm .

However, the surface roughness of the shaft member being 1 to 100 μm is considered to be obvious, since the adhesive strength is dependent on how rough the shaft member surface of the reinforcing member is. Thus, it would advantageously prevent the optical fiber coupler from sliding out. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the optical fiber coupler reinforcing member of Takimoto with a surface roughness of the shaft member in a range as claimed for the purpose of preventing the optical fiber coupler from sliding out, and it also has been held that where the general conditions of a

claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the ranges claimed. *In re Aller*, 105 USPQ 233 (see MPEP § 2144.05).

10. Claims 2, 4, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takimoto et al. (as cited above) in view of Koya et al. (U.S. Patent 5,295,219).

With respect to claim 2, Takimoto et al. (column 3, lines 51-56) disclose an optical fiber coupler reinforcing member in which a shape in cross-section of the shaft member is a polygonal shape.

Takimoto et al. do not specifically disclose that the optical fiber coupler reinforcing member, including a shape in cross-section of the shaft member is the polygonal shape, inscribes a circle.

However, Koya et al. (figures 1A and 1B) disclose an optical fiber coupler reinforcing member (15) housing an optical fiber coupler (10) is inscribed in a cylindrical metal case (14). This feature would beneficially provide more supporting and protecting for the optical fiber coupler (column 2, lines 5-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Takimoto's device with an optical fiber coupler reinforcing member inscribed in a circle (accordance with the teaching of Koya et al.). Doing so would be desirable to efficiently support an optical fiber coupler and prevent the optical fiber coupler from any damage.

With respect to claim 4, as discussed above, Takimoto et al. (figures 1(a) and 1(c)) disclose the optical fiber coupler reinforcing member (10) having the longitudinal groove (11) with a U-shaped cross section, but figures 1(a) and 1(c) of Takimoto et al. do not disclose that corners of both ends of the longitudinal groove are beveled. However, another embodiment, such as figure 6, of Takimoto et al. shows the other shapes of the reinforcing member. Figure 6 of Takimoto et al. clearly shows the longitudinal groove (21C) having corners of both ends are beveled. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the U-shaped groove in figures 1(a) and 1(c) to have corners of both ends beveled (accordance with the teaching of another embodiment of Takimoto et al.), because, as taught by Takimoto et al., the changing in shape as disclosed in figure 1(c) or in figure 6 would produce no functional differences, they all give the same function of reinforcing casing (column 3, lines 50-56). Also see in re Woodruff, 919F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

With respect to claims 10 and 12, Takimoto et al. (column 4, lines 32-41) disclose a material, such as plastics or ceramics, is preferably used to make an optical fiber coupler reinforcing member.

Takimoto et al. do not disclose an optical fiber coupler-reinforcing member having a surface roughness of the shaft member is 1 to 100 μm .

However, the surface roughness of the shaft member being 1 to 100 μm is considered to be obvious, since the adhesive strength is dependent on how rough the shaft member surface of the reinforcing member is. Thus, it would advantageously prevent the optical fiber coupler from sliding out. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the optical fiber coupler reinforcing member of Takimoto with a surface roughness of the shaft member in a range as claimed for the purpose of preventing the optical fiber coupler from sliding out, and it also has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and it is noted that the applicant does not disclose criticality in the ranges claimed. *In re Aller*, 105 USPQ 233 (see MPEP § 2144.05).

Allowable Subject Matter

11. Claims 5-8 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art fails to disclose or reasonably suggest an optical fiber coupler reinforcing member having the shaft member includes a super invar or an invar material and a surface of the shaft member is subjected to chrome plating, tin plating or nickel plating at a predetermined thickness as recited in claims 5-8.

Claims 13-16 are dependent on the objected claims 5-8 respectively. Therefore, claims 13-16 are also objected.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00 am to 3:30 pm, second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer Doan

Patent examiner

October 14, 2004